

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 2 of 11

P273 Avoid release to the environment.

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixture containing following substances with additives :

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
9003-36-5	Formaldehyde, oligomeric reaction products with 1-chloro-2, 3-epoxypropane and phenol			< 55 %
	500-006-8		01-2119454392-40	
	Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411			
1675-54-3	bis-[4-(2,3-epoxypropoxy)phenyl]propane			< 20 %
	216-823-5	603-073-00-2	01-2119456619-26	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity	
	Specific Conc. Limits, M-factors and ATE			
9003-36-5	500-006-8	Formaldehyde, oligomeric reaction products with 1-chloro-2, 3-epoxypropane and phenol	< 55 %	
	dermal: LD50 = > 400 mg/kg; oral: LD50 = > 2000 mg/kg			
1675-54-3	216-823-5	bis-[4-(2,3-epoxypropoxy)phenyl]propane	< 20 %	
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100			

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.
In the event of persistent symptoms receive medical treatment.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.
In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 3 of 11

After ingestion

- Do not induce vomiting.
- Rinse out mouth and give plenty of water to drink.
- Never give anything by mouth to an unconscious person.
- Summon a doctor immediately.
- Induce vomiting only upon the advice of a physician.

4.2. Most important symptoms and effects, both acute and delayed

- Causes skin irritation.
- Causes serious eye irritation.
- May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

- Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

- Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

- Full water jet.

5.2. Special hazards arising from the substance or mixture

- Fire may produce:
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

5.3. Advice for firefighters

- Use breathing apparatus with independent air supply.
- Protective suit.

Additional information

- Cool containers at risk with water spray jet.
- Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

- Ensure adequate ventilation.
- Keep away noninvolved persons.

For non-emergency personnel

- Do not breathe vapours.
- Avoid contact with skin, eyes and clothing.

For emergency responders

- In case of vapour formation use respirator.
- Use personal protective clothing.

6.2. Environmental precautions

- Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up**For containment**

- Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
- Shovel into suitable container for disposal.
- Clean contaminated surface thoroughly.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 4 of 11

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed.
Use only in thoroughly ventilated areas.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

No special protective measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.
Protect against direct sun radiation.

Hints on joint storage

Incompatible with:
Oxidizing agents, Amines, Acids and bases.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Two component repair kit

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
7440-44-0	(OLD) Graphite, total inhalable dust	-	10		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
9003-36-5	Formaldehyde, oligomeric reaction products with 1-chloro-2, 3-epoxypropane and phenol			
Worker DNEL, long-term		dermal	systemic	104,15 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	29,39 mg/m ³
1675-54-3	bis-[4-(2,3-epoxipropoxy)phenyl]propane			
Worker DNEL, long-term		inhalation	systemic	12,25 mg/m ³
Worker DNEL, acute		inhalation	systemic	12,25 mg/m ³
Worker DNEL, long-term		dermal	systemic	8,33 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	8,33 mg/kg bw/day

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 5 of 11

PNEC values

CAS No	Substance	Value
Environmental compartment		
9003-36-5	Formaldehyde, oligomeric reaction products with 1-chloro-2, 3-epoxypropane and phenol	
Freshwater		0,003 mg/l
Marine water		0,000 mg/l
Freshwater sediment		0,294 mg/kg
Marine sediment		0,029 mg/kg
Soil		0,237 mg/kg
1675-54-3	bis-[4-(2,3-epoxipropoxy)phenyl]propane	
Freshwater		0,006 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,341 mg/kg
Marine sediment		0,034 mg/kg
Soil		0,065 mg/kg

Additional advice on limit values

This product does not contain any substances for which a Workplace Exposure Limit has been set in concentrations above the limits.

8.2. Exposure controls**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not inhale vapours.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

Eye/face protection

Tightly fitting goggles (EN 166).
Eye wash bottle with pure water (EN 15154).

Hand protection

Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.
Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: Pasty
Colour: Black

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 6 of 11

Odour:	Slight of epoxy	
pH-Value:		n. d.
Changes in the physical state		
Melting point/freezing point:		n. d.
Boiling point or initial boiling point and boiling range:		n. d.
Sublimation point:		n.a.
Softening point:		n. d.
Flash point:		> 252 °C
Flammability		
Solid/liquid:		n.a.
Explosive properties		
The product is not explosive.		
Lower explosion limits:		n. d.
Upper explosion limits:		n. d.
Auto-ignition temperature:		> 300 °C
Self-ignition temperature		
Solid:		n.a.
Gas:		n.a.
Decomposition temperature:		n. d.
Oxidizing properties		
Not oxidising.		
Vapour pressure:		n. d.
Density (at 20 °C):		1,26 g/cm ³
Bulk density:		n.a.
Water solubility: (at 20 °C)		Immiscible
Solubility in other solvents		
n. d.		
Partition coefficient n-octanol/water:		n. d.
Viscosity / dynamic:		n. d.
Viscosity / kinematic:		n. d.
Flow time:		n. d.
Relative vapour density:		n. d.
Evaporation rate:		n. d.
Solvent separation test:		0 %
Solvent content:		0 %

9.2. Other information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 7 of 11

10.3. Possibility of hazardous reactions

Reactions with acids, alkalies and oxidising agents.
Reactions with amines.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Protect against direct sun radiation.
Polymerisation occurs when exposed to heat.

10.5. Incompatible materials

Strong oxidizing agents, Amines, Acids and bases

10.6. Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Based on available data, the classification criteria are not met.
No toxicological data available.

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol; bis-[4-(2,3-epoxypropoxy)phenyl]propane)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

11.2. Information on other hazards**Endocrine disrupting properties**

No data available

SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.
Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Not readily biodegradable.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 8 of 11

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Can be incinerated, when in compliance with local regulations.
Where possible recycling is preferred to disposal.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

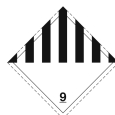
Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packagings are to be treated like the product itself.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 3082
<u>14.2. UN proper shipping name:</u>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
<u>14.3. Transport hazard class(es):</u>	9
<u>14.4. Packing group:</u>	III
Hazard label:	9



Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

Inland waterways transport (ADN)

<u>14.1. UN number:</u>	UN 3082
<u>14.2. UN proper shipping name:</u>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 9 of 11

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

Marine transport (IMDG)
14.1. UN number:

UN 3082

14.2. UN proper shipping name:

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Epoxy resin)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Marine pollutant:

Yes

Special Provisions:

274 335 969

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

EmS:

F-A, S-F

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number:

UN 3082

14.2. UN proper shipping name:

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Epoxy resin)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Special Provisions:

A97 A158 A197 A215

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger:

964

IATA-max. quantity - Passenger:

450 L

IATA-packing instructions - Cargo:

964

IATA-max. quantity - Cargo:

450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

Yes



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 10 of 11

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

2004/42/EC (VOC):

0 %

Information according to 2012/18/EU
(SEVESO III):

E2 Hazardous to the Aquatic Environment

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,6,7,8,11,12,14.

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMAFIX H COMP. A

Revision date: 04.04.2023

Product code: 00359-1013

Page 11 of 11

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)